

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A soft handoff system comprising a correspondent host, a first base station, a second base station, and a mobile terminal, wherein the correspondent host transmits messages to said first base station where said first base station retransmits said messages to said second base station using IP-in-IP encapsulation between said base stations, wherein said base stations encapsulate and de-encapsulate packets, ~~and~~ wherein said mobile terminal is in an area serviceable by and receives said messages from both said first base station and said second base station, and wherein at least one of said first and second base stations is configured to determine when to initiate a soft handoff.

2. (Currently Amended) A mobile terminal configured to receive a first message from a first base station and a second message from a second base station, wherein the mobile terminal experiences soft handoff between said first and second base stations, said soft handoff using IP-in-IP encapsulation in which said first base station transmits said first message to both said mobile terminal and said second base station, and wherein said IP-in-IP encapsulation is applied to said first message toward said second base station, and wherein said second base station transmits a content included in the first message with said IP-in-IP encapsulation received from said first base station to said mobile terminal as said second message, and wherein said base stations encapsulate and de-encapsulate packets, and wherein at least one of said first and second base stations is configured to determine when to initiate said soft handoff.

3. (Currently Amended) A soft handoff system comprising:
a correspondent host;
a first base station that transmits packets to a mobile station;
a second base station; and,
said mobile station,
wherein packets from said correspondent host are transmitted to said first base station, wherein said packets are encapsulated with a header, and sent to said second base station, and

wherein said header is removed from said packet and the content of said packet is transmitted to said mobile station, said packets being transmitted from both said first base station and said second base station to said mobile terminal while experiencing soft handoff, and wherein at least one of said first and second base stations is configured to determine when to initiate said soft handoff.

4. (Original) The system according to claim 3, wherein said packets are exchanged in an IP network.

5. (Original) The system according to claim 4, wherein said IP network is part of a CDMA network.

6. (Original) The system according to claim 3, wherein a second packet from said correspondent host is transmitted to said second base station, wherein said second packet is encapsulated with a second header and sent to said first base station, and wherein said second header is removed from said second packet and the content of said second packet is transmitted to said mobile station.

7. (Original) The system according to claim 3, wherein said mobile station transmits a first data unit to said first base station and said mobile station transmits a second data unit to said second base station.

8. (Original) The system according to claim 7, wherein said second base station transmits a second packet containing content received from said mobile station to said correspondent host or to said first base station.

9-14. (Cancelled)

15. (Currently Amended) A method for performing soft handoff using IP-in-IP encapsulation between base stations, said method comprising:

transmitting messages from a first base station to both a mobile terminal and a second base station;

applying said IP-in-IP encapsulation to messages toward said second base station; and

transmitting from said second base station a content of messages with IP-in-IP encapsulation received from said first base station to said mobile terminal,

wherein said base stations are configured to encapsulate and de-encapsulate IP packets,
and

wherein at least one of said first and second base stations is configured to determine when to initiate said soft handoff.

16-21. (Cancelled)

22. (Currently Amended) A method for performing soft handoff using IP-in-IP encapsulation between base stations, comprising:

receiving at a mobile terminal a first message in which transmitted by a first base station;
and transmits messages to both said mobile terminal and a second base station;

receiving at said mobile terminal a second message transmitted by said a second base station,

wherein said second base station generates said second message transmitting messages received from said first base station to said mobile terminal based on said first message that said second base station receives from said first base station,

wherein said first and second base stations perform encapsulation and de-encapsulation of IP packets for transferring said messages from said first base station to said second base station, and

wherein at least one of said first and second base stations is configured to determine when to initiate said soft handoff.

23. (Currently Amended) A method for performing soft handoff, in which a set of packets are transmitted to a mobile terminal from both a first base station and a second base station while said mobile terminal is experiencing soft handoff comprising the steps of:

transmitting a packet from a correspondent host to said first base station;

encapsulating said packet with a new header;

transmitting said packet with said new header to said second base station;

removing said new header at said second base station;

transmitting content in said packet to said mobile station, and

wherein at least one of said first and second base stations is configured to determine when to initiate said soft handoff.

24. (Original) The method according to claim 23, wherein said packet is routed in an IP network.

25. (Original) The method according to claim 24, wherein said IP network is a part of a CDMA network.

26. (Original) The method according to claim 23, further comprising the steps of:
transmitting a second packet from said correspondent host to said second base station;
adding a second header to said second packet;
transmitting said second packet and said second header to said first base station;
removing said second header; and
transmitting the content contained within said second packet to said mobile station.

27. (Original) The method according to claim 23, further comprising the steps of:
receiving a first data unit transmitted from said mobile station at said first base station;
and
receiving a second data unit from said mobile station at said second base station.

28. (Original) The method according to claim 27, further comprising the steps of:
receiving a second packet containing content received from said mobile station at said correspondent host or to said first base station.

29. (Currently Amended) A method for a mobile station to experience soft handoff between base stations using IP-in-IP encapsulation, comprising:
in which packets are transmitted transmitting from a first base station a packet to said mobile station;
encapsulating a content included in said packet at said first base station;
transmitting said encapsulated content from said first base station to a second base station,
wherein said that encapsulates and transmits the same content of said packets to a second base station is configured to for transmission transmit said content included in said encapsulated content to a said mobile terminal station during soft hand off, and
wherein at least one of said first and second base stations is configured to determine when to initiate said soft handoff.

30. (Currently Amended) A method for performing soft handoff for a mobile station in which packets are transferred with both a first base station and a second base station when a mobile terminal is in an area serviceable by both said first base station and said second base station, said method comprising:

transmitting a packet from a correspondent host to said first base station,
encapsulating at said first base station content in said packet with a new header,
transmitting said content with said new header from said first base station to said second base station,
removing said new header at said second base station,
transmitting said content from said first base station to said mobile station, and
transmitting said content from said second base station to said mobile station.

wherein at least one of said first and second base stations is configured to determine when to initiate said soft handoff.

31. (Original) The method according to claim 30, wherein said packet is routed in an IP network.

32. (Original) The method according to claim 31, wherein said IP network is a part of a CDMA network.

33. (Canceled).

34. (Original) The method according to claim 30, further comprising the steps of: transmitting a first data unit from said mobile station to said first base station; and transmitting a second data unit from said mobile station to said second base station.

35. (Original) The method according to claim 30, further comprising the steps of: transmitting a second packet containing content received from said mobile station to said correspondent host or to said first base station.

36. (Previously Presented) The system according to claim 3, said first base station further comprising:

an output through which said packets received from said correspondent host are transmitted to said mobile station, such that said mobile station receives packets from said first base station and said second base station,

wherein said first base station and said second base station both transmitting said packets from said correspondent host results in soft-handoff between said first base station and said second base station.

37. (Previously Presented) The method according to claim 23, further comprising the step of:

transmitting from said first base station to said mobile terminal said packet from said correspondent host,

wherein said first base station and said second base station both transmitting said packets from said correspondent host results in soft-handoff between said first base station and said second base station.

38. (Previously presented) The method according to claim 30, further comprising the step of:

receiving a third packet at said mobile station, said third packet having been transmitted from said first base station, said first base station having received said third packet encapsulated by a third header, said third header having been added by said second base station.

39. (Previously Presented) The soft handoff system according to claim 3, wherein a network management system monitors a delay between said messages.

40. (Original) The mobile terminal according to claim 2, wherein the transmission from said first base station to said mobile terminal and the transmission from said second base station to said mobile terminal occur simultaneously.

41. (Original) The soft handoff system according to claim 3, wherein said encapsulation header includes an option field that specifies a time for said second base station to transmit said packets to said mobile terminal

42. (Original) The method according to claim 15, said mobile terminal monitoring a delay between reception of messages originating from said first base station and said second base station and reporting said delay to at least one of said base stations

43. (Previously Presented) The method according to claim 15, wherein said base stations transmit said messages to said mobile terminal simultaneously.

44. (Original) The method according to claim 23, wherein said new header includes a field specifying a time for said second base station to transmit said packet.

45. (Previously Presented) The method according to claim 15, wherein the encapsulation includes a field specifying a time for the second base station to transmit packets to the mobile terminal.

46. (Original) The method according to claim 30, wherein said receiving step receives said content from both said first base station and said second base station simultaneously.